

1 CLAIMS

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3 What is claimed is:

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6 *Sub AI* Claim 1. A method for inhibition of corrosion of a  
7 metal which experiences active-passive transition in contact  
8 with an electrolyte comprising:

9 incorporating one or more hydrogen peroxide donors with  
10 said electrolyte at a concentration effective to inhibit  
11 corrosion.

12 Claim 2. The method in accordance with claim 1 wherein  
13 said hydrogen peroxide donors are selected from the group  
14 consisting of hydrogen peroxide, sodium peroxide, potassium  
15 peroxide, calcium dioxide, sodium percarbonate, potassium  
16 percarbonate, sodium perborate, potassium perborate or  
17 mixtures thereof.

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19 Claim 3. The method in accordance with claim 1 wherein  
20 said metal is selected from the group consisting of steel(s),  
21 aluminum, titanium or mixtures thereof.

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23 Claim 4. A method for inhibition of corrosion of a  
24 metal which experiences active-passive transition in contact

1 with an electrolyte comprising:

2 incorporating one or more peroxycarboxylic acid or  
3 constituents thereof with said electrolyte at a concentration  
4 effective to inhibit corrosion.

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6 Claim 5. The method in accordance with claim 4 wherein  
7 said metal is selected from the group consisting of steel(s),  
8 aluminum, titanium or mixtures thereof.

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10 Claim 6. The method in accordance with claim 4 wherein  
11 said peroxycarboxylic acids are formed from acids selected  
12 from the group consisting of formic acid, acetic acid, citric  
13 acid, oxalic acid, gluconic acid, glucoheptonic acid,  
14 succinic acid, acrylic acid, polyacrylic acid, maleic acid,  
15 polymaleic acid, polyepoxysuccinic acid, ethylene-diamine-  
16 tetraacetic acid, malonic acid, adipic acid,  
17 phosphonobutanepolycarboxylic acid and mixtures thereof.

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19 Claim 7. A method of inhibition of corrosion during  
20 removal of deposits from a metal which experiences active-  
21 passive transition while in contact with an electrolyte  
22 comprising:

23 incorporating one or more peroxycarboxylic acids or  
24 their constituents with said electrolyte at a concentration

1 effective to inhibit corrosion.

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3 Claim 8. The method in accordance with claim 7 wherein  
4 said metal is selected from the group consisting of steel(s),  
5 aluminum, titanium or mixtures thereof.

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7 Claim 9. The method in accordance with claim 7 wherein  
8 said peroxy-carboxylic acids are formed from acids selected  
9 from the group consisting of formic acid, acetic acid, citric  
10 acid, oxalic acid, gluconic acid, glucoheptonic acid,  
11 succinic acid, acrylic acid, polyacrylic acid, maleic acid,  
12 polymaleic acid, polyepoxysuccinic acid, ethylene-diamine-  
13 tetraacetic acid, malonic acid, adipic acid,  
14 phosphonobutanepolycarboxylic acid and mixtures thereof.

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